

ART 34 AMDT

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5 CLAIMS

- 10 1. A current-driven liquid metal electrolyte cell of known kind with specific operational and geometric parameters, comprising means for imposing on the cell an additional external, time-varying and/or alternating magnetic field, characterised in that said magnetic field is dependent on an amplitude and frequency whose values are generated through wave reflection analysis on a wall whose parameters are sufficiently representative of the actual cell wall's
- 15 parameters so that the resultant magnetic field generated and then imposed on the cell tends to parametrically and dynamically de-synchronize any resonance instability which would be generated essentially near the cell's walls.
- 20 2. A cell according to claim 1, wherein said magnetic field is derived through the analysis of the reflection on an infinite wall.
3. A cell according to either claim 1 or claim 2, wherein said analysis is carried out on a rectangular cell wall and adapted to suit other cell geometries.
- 25 4. A cell according to any preceding claim, wherein said magnetic field is applied essentially only to one section of the cell.
- 30 5. A current-driven liquid metal electrolyte system substantially as described herein with reference to and as illustrated in any appropriate combination of the accompanying text and/or drawings.